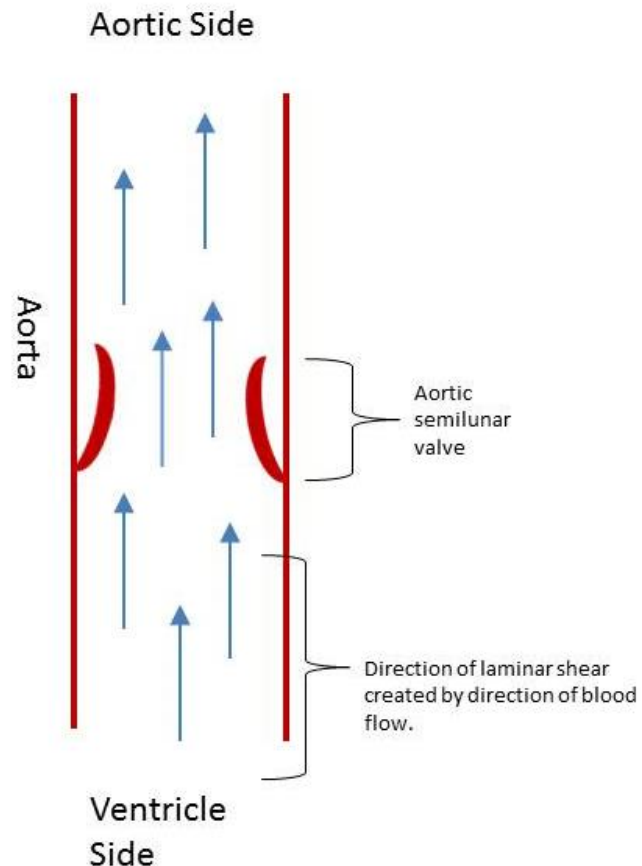


Heart Functioning Pre-Test **Answer Key**

1. Sketch the aorta leading away from the left ventricle of the heart. Label the direction of blood flow through the aorta.
2. Add the location of the aortic valve to your sketch. Label it “aortic valve.”

Answer for 1 and 2 →



3. What is the job of the aortic valve in the aorta?

The aortic valve closes when the heart relaxes, preventing backflow of blood into the heart (or prevents cardiac regurgitation).

4. Do you think that the blood flowing through the aorta (and the aortic valve) exerts any force on the aorta or aortic valve? If yes, try to describe the forces that might be exerted on the valve and walls of the aorta.

Yes. Blood flowing up into the aorta create sheer stress along the ventricular side of the aortic valves when the valves are in the open position. When the valve is closed, the blood flows along the top (aortic side) of the valve in a circular direction.